Mary Timere

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re application of ale E. Fiene

Filed: February 5, 1987

Attorney Docket No. 635 P 004

For: A.C. POWERED SMOKE

DETECTOR WITH BACK-UP SUPERVISION CIRCUIT"

Hon. Commissioner of Patents and Trademarks Washington, D.C. 20231

Dear Sir:

SUBMISSION OF
PRIOR ART REFERENCES

MAR 3 0 1980

Pursuant to 37 CFR 1.56, Applicants hereby submit copies of the following U.S. references as prior art:

U.S. Patent No.	Inventor
4,088,986	Boucher
4,227,191	Raber
$\int_{4,251,811}$	Wittlinger
4,266,219	Foster et al.
4,333,093	Raber et al.
4,388,615	Ford et al.
4,544,910	Hoberman
4,563,628	Tietz et al.

# U.S. Patent No. 4,088,986 to Boucher

Patent '986 appears to disclose a smoke alarm which includes circuitry for providing integrity checks and including an emergency back-up rechargeable battery. No means appear to be shown for disconnecting the normal or A.C. supply when the

battery is being tested. In contrast to Boucher, the circuitry of the subject application includes a regular, replaceable or non-rechargeable battery, and includes means for switchably disconnecting the D.C. power supply during battery test.

### U.S. Patent No. 4,277,191 to Raber

Patent '191 appears to disclose a two battery operated smoke detector, and is not an A.C. powered detector as is the circuitry of the subject application and has no means for disconnecting a D.C. power supply during test.

### U.S. Patent No. 4,251,811 to Wittlinger

Patent '811 appears to disclose a battery operated smoke alarm with a test means for open circuit voltage and series resistance. Patent '811 is not an A.C. powered detector and has no means for disconnecting a D.C. power supply during test.

#### U.S. Patent No. 4,266,219 to Foster et al.

Patent '219 appears to disclose a battery operated smoke alarm. The comments relating to patents '191 and '811 above apply hereto.

## U.S. Patent 4,388,615 to Ford et al.

Patent '615 appears to disclose a testing apparatus for emergency battery powered lighting equipment. Patent '615 is generally pertinent in that it discloses an A.C. powered

apparatus wherein the main A.C. supply is disconnected, and the battery supply is connected and a light output provided when the battery is tested.

#### U.S. Patent No. 4,333,093 to Raber et al.

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Patent '093 appears to disclose an intrusion detection system with circuitry to detect a low battery condition. The circuit of patent '093 is not A.C. powered and does not include means from disconnecting a back-up battery from the A.C. source as does the circuit of the subject application.

#### U.S. Patent 4,544,910 to Hoberman

Patent '910 appears to disclose an A.C. operated lamp flashing system with rechargeable back-up batteries. Circuitry is provided for preventing overcharging of the batteries and for disconnecting the load from the battery before the battery voltage drops below a selected value. Patent '910 appears generally pertinent in that when testing rechargeable battery 8, a switch 3 is activated to disconnect the A.C. power supply.

#### U.S. Patent 4,563,628 to Tietz et al.

Patent '628 appears to disclose a circuit for testing the condition of a rechargeable battery. The comments relating to patents '191 and '811 above apply hereto.

It is requested that these references be considered at the time the application is examined.

Respectfully submitted,

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